



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,564	12/05/2001	Akira Takahashi	70904-56737	7094

21874 7590 06/27/2003

EDWARDS & ANGELL, LLP
P.O. BOX 9169
BOSTON, MA 02209

EXAMINER

CAO, ALLEN T

ART UNIT PAPER NUMBER

2652

DATE MAILED: 06/27/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

g

Office Action Summary

Application No.

10/004,564

Applicant(s)

TAKAHASHI ET AL.

Examiner

Allen T Cao

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Art Unit: 2652

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 9 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistretta (US. 5,548,571) in view of Watanabe et al (US. 6,339,583 B1).

Mistretta discloses a disc cartridge 8 having a disc 6 in a disc shape, including a recording layer for recording/reproducing information; a disc cover 12 for covering at least a part of one side of the disc (aperture 13 for holding the disc 6); and a "connecting" means for connecting the disc and the disc cover (spring 13, 16; see column 1, lines 51-54); wherein a side of the disc, which is opposite to the side of the disc covered by the disc cover, is exposed externally (figures 1 and 2) as set forth in claims 1, 9, 17 and 19-20.

Regarding claim 3, Mistretta discloses that the disc cover includes an outer touching section that touches the disc in a vicinity of an outer circumference thereof when the disc cover is connected with the disc (see elements 13, 16 which is an outer touching section that touches the disc in a vicinity of an outer circumference of the disc).

Regarding claim 4, Mistretta discloses that the outer touching section is made of an elastic material (spring is inherently an elastic material).

Regarding claim 16, Mistretta discloses that the disc cover is made of metal (column 4, lines 31-32).

Art Unit: 2652

Regarding claim 18, Mistretta inherently discloses that the disc cover has a region which has no side wall in "at least" part of the outer circumference of the disc cover.

Mistretta does not disclose that the disc cover covers at least a surface for recording/reproducing, which is accessed by a head for recording/reproducing information with respect to the disk.

Watanabe et al disclose a disk cartridge having a disk cover covered at least a surface for recording/reproducing, which is accessed by a head for recording/reproducing information with respect to the disk.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disk cartridge of Mistretta with a disk cover such that the cover covers at least a surface for recording/reproducing, which is accessed by a head for recording/reproducing information with respect to the disk.

The rationale is as follows: One of ordinary skill in the art would have been motivated to modify the disk cartridge of Mistretta with a disk cover such that the cover covers at least a surface for recording/reproducing, which is accessed by a head for recording/reproducing information with respect to the disk to prevent the dust or articles can get into the recording surface in order to improve the reliability of the disk.

3. Claims 2, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistretta and Watanabe et al as applied to claims above, and further in view of Lee et al (US.

Art Unit: 2652

5,202,880).

Mistretta as modified by Watanabe et al disclose a disc; however Mistretta as modified by Watanabe et al do not disclose a disc having such limitations as set forth in claim 2.

Lee et al disclose a disc having a disc substrate 110, the recording layer 140, and a protective layer 150, which is transparent, in this order; wherein at least a part of a side of the disc, on which the protective layer 150 is formed, is covered by the disc cover so that the side of the disc on the disc on which the protective is formed is subjected to light projected thereon, so as to record/reproduce information.

Regarding claim 10, Lee et al disclose that the protective layer has a thickness ranging from 0 to 20 micrometers (column 8, lines 46-49).

Regarding claims 11 and 12, Lee et al disclose that the substrate is made of a glass material (column 6, line 66) which is inherently anti-static because glass is not a static material.

Regarding claims 13-15, Lee et al inherently disclose that the protective layer is made of a glass or resin material because glass or resin is one type of a transparent material and which is inherently slippery and anti-static.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disc of the disc cartridge of Mistretta as modified by Watanabe et al with such limitations as set forth, supra as taught by Lee et al as an obvious engineering routine choices.

Art Unit: 2652

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistretta and Watanabe et al as applied to claims above, and further in view of Iizuka et al (US. 4,677,516).

Regarding claims 5 and 6, Mistretta as modified by Watanabe et al do not disclose an inner touching section, made of an elastic material, that touches the disc in a vicinity of an inner circumference thereof when the disc cover is connected with the disc.

Iizuka et al disclose a disc cartridge having an inner touching section (24 and 25), made of an elastic material, that touches the disc in a vicinity of an inner circumference thereof when the disc cover is connected with the disc.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disc cartridge of Mistretta as modified by Watanabe et al with such inner touching section as taught by Iizuka et al to reduce the thickness and reduce the dust.

5. Claims 21-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mistretta and Watanabe et al as applied to claims above, and further in view of Ma et al (US. 5,537,281).

Mistretta as modified by Watanabe et al discloses a disc cartridge 8 having a disc 6 in a disc shape, including a recording layer for recording/reproducing information; a disc cover 12 for covering at least a part of one side of the disc (aperture 13 for holding the disc 6); and a “connecting” means for connecting the disc and the disc cover (spring 13, 16; see column 1, lines

Art Unit: 2652

51-54); wherein a side of the disc, which is opposite to the side of the disc covered by the disc cover, is exposed externally (figures 1 and 2) as set forth in claims 21-22 and 24--26.

Mistretta as modified by Watanabe et al do not disclose a separating means for separating the disc and the disc cover, so as to allow the head to be inserted between the disc and disc cover so that the recording/reproducing is performed as claimed in claim 21. Nor does Mistretta as modified by Watanabe et al disclose a shutter closing/opening for closing/opening the cartridge shutter as set forth in claim 24.

Ma et al disclose a disc cartridge apparatus having a separating means for separating the disc 14 and the disc cover 12 so as to allow the head 42a to be inserted between the disc and disc cover so that the recording/reproducing is performed; and a cartridge shutter for closing/opening the cartridge shutter.

Regarding claim 22, Ma et al disclose a spindle for rotating the disc; wherein the separating means acts as moving means for moving the disc cover in a direction of a rotation axis of the disc, while leaving the disc on the spindle motor, so as to separate the disc and the disc cover, when the disc cartridge is inserted to be placed on the spindle motor (figures 1a, 1b and 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disc cartridge system of Mistretta as modified by Watanabe et al with such limitations as set forth, supra as taught by Ma et al to improve the read/write characteristics of the drive system.

Art Unit: 2652

6. Claims 7-8 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.



Allen Cao

Primary Examiner

AC

June 26, 2003